

What is claimed is:

- 1 1. A path searching circuit employed in a CDMA (Code Division  
2 Multiple Access) communication system comprising:  
3 a weighing controlling section to monitor a change in a  
4 power level of a sample of each of two or more delay profiles to  
5 be used in same power adding processing in delay profile  
6 calculation for path search processes and to assign weight to a  
7 power level of a specified sample according to a result from the  
8 monitoring.
- 1 2. The path searching circuit according to Claim 1, wherein  
2 said weighing controlling section saves a sample whose power level  
3 exceeds a power threshold value as a candidate for weighing  
4 control.
- 1 3. The path searching circuit according to Claim 2, wherein  
2 said weighing controlling section, when a number of samples of  
3 a candidate for said weighing control is 1 (one), assigns negative  
4 weight to a power level of the sample.
- 1 4. The path searching circuit according to Claim 2, wherein  
2 said weighing controlling section, when a number of samples of  
3 said candidate for said weighing control is two or more and when  
4 a difference in power levels among specified samples is a change  
5 threshold value or more, assigns negative weight to power levels  
6 of the two or more samples.
- 1 5. The path searching circuit according to Claim 1, wherein

2 said weight assigned to said power level of said specified sample  
3 by said weighing controlling section is determined based on any  
4 one of a fixed value, a maximum power level, and an amount of a  
5 change in a power level.

1 6. The path searching circuit according to Claim 4, wherein,  
2 in comparison between said change threshold value and a difference  
3 in power levels among specified samples, when a number of samples  
4 of said candidate for said weighing control is 2 (two), a  
5 difference in power levels between the two samples is compared  
6 with said change threshold value and when a number of samples of  
7 said candidate for said weighing control is 3 (three) or more,  
8 a difference between a maximum power level and a minimum power  
9 level is compared with said change threshold value or a difference  
10 in power levels among samples of delay profiles existing before  
11 and after one another in terms of time is compared with said change  
12 threshold value.

1 7. A path searching circuit employed in a CDMA (Code Division  
2 Multiple Access) communication system comprising:  
3 a weighing controlling means to monitor a change in a power  
4 level of a sample of each of two or more delay profiles to be used  
5 in same power adding processing in delay profile calculation for  
6 path search processes and to assign weight to a power level of  
7 a specified sample according to a result from the monitoring.

1 8. The path searching circuit according to Claim 7, wherein  
2 said weighing controlling means saves a sample whose power level  
3 exceeds a power threshold value as a candidate for weighing

4 control.

1 9. The path searching circuit according to Claim 8, wherein  
2 said weighing controlling means, when a number of samples of a  
3 candidate for said weighing control is 1 (one), assigns negative  
4 weight to a power level of the sample.

1 10. The path searching circuit according to Claim 8, wherein  
2 said weighing controlling means, when a number of samples of said  
3 candidate for said weighing control is two or more and when a  
4 difference in power levels among specified samples is a change  
5 threshold value or more, assigns negative weight to power levels  
6 of the two or more samples.

1 11. The path searching circuit according to Claim 8, wherein  
2 said weight assigned to said power level of said specified sample  
3 by said weighing controlling means is determined based on any one  
4 of a fixed value, a maximum power level, and an amount of a change  
5 in a power level.

1 12. The path searching circuit according to Claim 10, wherein,  
2 in comparison between said change threshold value and a difference  
3 in power levels among specified samples, when a number of samples  
4 of said candidate for said weighing control is 2 (two), a  
5 difference in power levels between the two samples is compared  
6 with said change threshold value and when a number of samples of  
7 said candidate for said weighing control is 3 (three) or more,  
8 a difference between a maximum power level and a minimum power  
9 level is compared with said change threshold value or a difference

10 in power levels among samples of delay profiles existing before  
11 and after one another in terms of time is compared with said change  
12 threshold value.

1 13. A path searching method employed in a CDMA (Code Division  
2 Multiple Access) communication system comprising:

3 a weighing controlling step of monitoring a change in a  
4 power level of a sample of each of two or more delay profiles to  
5 be used in same power adding processing in delay profile  
6 calculation for path search processes and of assigning weight to  
7 a power level of a specified sample according to a result from  
8 the monitoring.

1 14. The path searching method according to Claim 13, wherein,  
2 in said weighing controlling step, a sample whose power level  
3 exceeds a power threshold is saved as a candidate for weighing  
4 control.

1 15. The path searching method according to Claim 14, wherein,  
2 in said weighing controlling step, when a number of samples of  
3 a candidate for said weighing control is 1 (one), negative weight  
4 is assigned to a power level of the sample.

1 16. The path searching method according to Claim 14, wherein,  
2 in said weighing controlling step, when a number of samples of  
3 said candidate for said weighing control is two or more and when  
4 a difference in power levels among specified samples is a change  
5 threshold value or more, negative weight is assigned to power  
6 levels of the two or more samples.

1 17. The path searching method according to Claim 13, wherein  
2 said weight assigned to said power level of said specified sample  
3 in said weighing controlling step is determined based on any one  
4 of a fixed value, a maximum power level, and an amount of a change  
5 in a power level.

1 18. The path searching method according to Claim 16, wherein,  
2 in comparison between said change threshold value and a difference  
3 in power levels among specified samples, when a number of samples  
4 of said candidate for said weighing control is 2 (two), a  
5 difference in power levels between the two samples is compared  
6 with said change threshold value and when a number of samples of  
7 said candidate for said weighing control is 3 (three) or more,  
8 a difference between a maximum power level and a minimum power  
9 level is compared with said change threshold value or a difference  
10 in power levels among samples of delay profiles existing before  
11 and after one another in terms of time is compared with said change  
12 threshold value.

1 19. A path searching program for having a computer execute a  
2 path searching method employed in a CDMA (Code Division Multiple  
3 Access) communication system comprising:

4 a weighing controlling step of monitoring a change in a  
5 power level of a sample of each of two or more delay profiles to  
6 be used in same power adding processing in delay profile  
7 calculation for path search processes and of assigning weight to  
8 a power level of a specified sample according to a result from  
9 the monitoring.

1 20. The path searching program according to Claim 19, wherein,  
2 in said weighing controlling step, a sample in which its power  
3 level exceeds a power threshold is saved as a candidate for  
4 weighing control.

1 21. The path searching program according to Claim 20, wherein,  
2 in said weighing controlling step, when a number of samples of  
3 a candidate for said weighing control is 1 (one), negative weight  
4 is assigned to a power level of the sample.

1 22. The path searching program according to Claim 20, wherein,  
2 in said weighing controlling step, when a number of samples of  
3 said candidate for said weighing control is two or more and when  
4 a difference in power levels among specified samples is a change  
5 threshold value or more, negative weight is assigned to power  
6 levels of the two or more samples.

1 23. The path searching program according to Claim 19, wherein  
2 said weight assigned to said power level of said specified sample  
3 in said weighing controlling step is determined based on any one  
4 of a fixed value, a maximum power level, and an amount of a change  
5 in a power level.

1 24. The path searching program according to Claim 22, wherein,  
2 in comparison between said change threshold value and a difference  
3 in power levels among specified samples, when a number of samples  
4 of said candidate for said weighing control is 2 (two), a  
5 difference in power levels between the two samples is compared  
6 with said change threshold value and when a number of samples of

7 said candidate for said weighing control is 3 (three) or more,  
8 a difference between a maximum power level and a minimum power  
9 level is compared with said change threshold value or a power level  
10 difference among samples of delay profiles existing before and  
11 after one another in terms of time is compared with said change  
12 threshold value.